NEW ENGLAND CLEAN ENERGY CONNECT

Compensation Plan

New England Clean Energy Connect (NECEC)

CENTRAL MAINE POWER

Prepared for:

Maine Department of Environmental Protection and United States Army Corps of Engineers

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Exhibits

1.1 Overview

Central Maine Power Company ("CMP") is pleased to provide a Compensation Plan ("Plan") which addresses a variety of natural resource impacts from the proposed construction and operation of the New England Clean Energy Connect ("NECEC") Project. This Plan achieves a *no-net-loss* of ecological functions and values through a combination of: use of the In-Lieu-Fee ("ILF") Program by the Maine Department of Environmental Protection ("MDEP") and US Army Corps of Engineers-New England District ("USACE") as a compensatory mitigation option for permit applicants; preservation of regionally significant natural resources; and implementation of a number of wildlife habitat enhancement projects. This Plan meets the compensation requirements of the MDEP, pursuant to the Natural Resources Protection Act ("NRPA"), 38 M.R.S. §480-A *et seq.*, and of the USACE pursuant to Section 404 of the CWA (33.U.S.C. §1344).

As described in CMP's NRPA application, submitted on September 27, 2017, CMP first sought to avoid and then minimize impacts wherever practicable through a thorough alternatives analysis (NRPA Attachment 2) and engineering design. However, where impacts cannot be avoided, a number of mitigation measures will be employed prior to and during construction to minimize impacts. These include measures such as: erosion and sedimentation controls, the use of equipment mats, consultation with third-party inspectors, construction timing restrictions, installation of avian avoidance markers where applicable, and winter condition clearing and construction, where practicable. Areas of temporary impact will be restored and revegetated as per the restoration measures described in CMP's Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects ("Environmental Guidelines") (*see* CMP's Site Law Application, Exhibit 14-1).

In this Plan, CMP will compensate for temporary and indirect natural resource impacts (i.e., impacts not directly associated with the placement of fill, such as conversion of habitat or tree clearing) and permanent alteration of protected natural resources. All temporary impacts will be of short duration, i.e., less than 18 months, and typically much shorter than 18 months. Permanent impacts requiring compensation are limited to either cover type conversion of protected natural resources or placement of fill resulting in loss of protected natural resource area.

CMP developed this compensation plan with input and participation from the MDEP and USACE. CMP held a working session with both agencies in April 2018, with the goal to define those compensable impacts and determine the compensation rates or ratios each agency would require. While each agency's requirements differed slightly, CMP's has developed a comprehensive compensation package that

satisfies the requirements of both the MDEP and USACE. In the NRPA Application, CMP proposed to offset unavoidable impacts to natural resources, which are not fully addressed through CMP's avoidance and mitigation measures, through a contribution to the MDEP ILF Program. While USACE specified that full compensation via ILF was acceptable, the MDEP indicated that ILF cannot be used as the sole source of compensation for the Project. The MDEP requires a compensation package that consists of a combination of preservation, enhancement, and/or ILF to offset the variety of project impacts including those impacts that are outside the purview of the ILF Program (38 M.R.S § 480-Z, e.g. indirect impact to rivers, streams or brooks, indirect impact to local and/or regional recreational values and outstanding river segments and wildlife habitat). The Compensation Plan set forth here is robust, fully accounts for and, in fact, provides more than the required compensation amounts for unavoidable Project impacts.

In consultation with MDEP and USACE, CMP defined the protected natural resource impacts that will result from construction of the NECEC and which will be addressed in the Compensation Plan. Additionally, the compensation ratios at which CMP must offset those impacts were determined by working directly with MDEP and USACE. Those rates can be found in Exhibit 1-1, NECEC Mitigation Guidance: Compensation Ratios and Adjustments per Agency.

CMP's Compensation Plan addresses the following unavoidable impacts:

- Temporary Wetland Fill
- Permanent Cover Type Conversion of Forested Wetlands
- Permanent Cover Type Conversion of Inland Waterfowl and Wading Bird Habitat (IWWH)
- Permanent Cover Type Conversion in Significant Vernal Pool Habitat (SVPH)
- Permanent Cover Type Conversion in Deer Wintering Areas (DWAs)
- Permanent Fill in IWWH
- Permanent Fill in SVPH
- Direct and Secondary Impact to USACE Jurisdictional Vernal Pools
- Other Impacts:
    - Impacts to recreational uses of outstanding river segments
    - Indirect impacts to coldwater fisheries
    - Impacts to wildlife habitat, including rare species
    - Impacts to rare plants and unique natural communities

1.2 NECEC Compensation Components

1.2.1 Compensation Summary

The NRPA Wetlands and Waterbodies Protection Rules provide that "compensation is the offsetting of a lost wetland function with a function of equal or greater value," and sets as a goal "no-net loss of wetland functions and values" (NRPA Wetlands and Waterbodies Protection Rules, Chapter 310 § 5C). This goal supports the federal goal of *no net loss* stated in a February 6, 1990 Memorandum of Agreement ("MOA") between USEPA and USACE titled *The Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines.*

Compensation amounts, or ratios of compensation to impact, are established by the Wetlands and Waterbodies Protection Rules, Chapter 310, and the Significant Wildlife Habitat Rules, Chapter 335. For example, compensation by restoration, enhancement, or creation is to be at least at a ratio of 1:1 for wetlands that are not of special significance and 2:1 for impacts to Wetlands of Special Significance ("WOSS"; (Chapter 310 §4). The ratio is set at 8:1 for preservation, which can include adjacent upland areas (Chapter 310 § 5C5(a-c). For those impacts offset through the ILF Program, resource compensation fees are calculated using resource-specific formulas, resource compensation rates and resource multipliers, as provided in the DEP Fact Sheet – In Lieu Fee Compensation Program (2017) ("ILF Program"). Resource multipliers take into consideration the significance of specific resources.

Compensation ratios established by the USACE's 2016 New England District Compensatory Mitigation Guidance ("Mitigation Guidance") are based on complexity of the wetland system, likelihood of compensation success, degree to which functions are replaced, and temporal losses for certain functions. The USACE has developed standard compensatory mitigation ratios (multipliers), provided as guidance allowing for "flexibility," and suggested multipliers, which are a starting point for developing a compensation plan. The guidance also suggests that while the ILF Program is "considered preferable," preservation as mitigation can support the goal of "no net loss of wetland functions." Preservation parcels used for mitigation must meet certain criteria to be considered for this purpose (33 CFR 332.3(h)). The USACE generally follows the MDEP's ILF Program resource compensation rates and resource multipliers.

Both agencies recognize that, for some resources, the temporary or secondary impact associated with transmission line construction and long-term operation does not equate to a full loss of resource functions and values, and therefore allows for adjustments to the standard ratios and multipliers depending upon the

resource and activity type. The USACE defines these adjustments, as a percentage of the standard amount by resource type, within Table C2 Recommended Compensatory Mitigation for Temporary and/or Secondary Impacts to Wetlands of the 2016 Mitigation Guidance. The MDEP provided correspondence to CMP dated April 25, 2017, in which Michael Mullin, former Director of Land Division, Bureau of Land Resources, allowed for a compensation adjustment of 60% for permanent cover type conversion impacts within significant vernal pool habitat, as defined by 38 M.R.S. § 480-B(10). CMP interpreted this adjustment to apply to all significant wildlife habitat and as such is applying a 60% adjustment to permanent cover type conversion impacts within IWWH. CMP confirmed with the MDEP, during a compensation plan working session with the MDEP and USACE on April 3, 2018, that application of the 60% adjustment for cover type conversion impacts in IWWH was appropriate. *See* Exhibit 1-1, NECEC Mitigation Guidance: Compensation Ratios and Adjustments Per Agency; Exhibit 1-2 MDEP Letter Re: Compensation for significant vernal pool habitats within transmission line corridors (Apr.25, 2017).

Compensation planning for the NECEC included a review of existing and potential compensation tracts already in CMP's ownership. CMP looked for compensation opportunities based on the criteria set forth in the USACE's Mitigation Rule, 33 CFR 332.3(h). Properties which were not considered as part of this final plan did not provide sufficient ecological or regional value to merit preservation. After a comprehensive GIS evaluation, the most viable tracts were field surveyed for the presence of natural resources. CMP considers the compensation parcels presented in this Plan as eligible for this use, as demonstrated in Section 1.2.2.2 and within the letter report from the Musson Group dated August 10, 2018, which evaluated the preservation parcels for purposes of meeting the USACE mitigation requirements and which is provided as Exhibit 1-3.

For impacts that require compensation from both the MDEP and USACE, CMP used the higher USACE ratios in determining required compensation amounts. For resource impacts for which only one agency required compensation, NRPA or USACE guidance was followed. The Compensation Package Summary, Exhibit 1-4, details the preservation parcels and the Project impacts they are proposed to offset. The In-Lieu Fee Summary, Exhibit 1-5A, presents the calculated fees by resource type with the standard formulas, and appropriate multipliers and adjustments. Table 1-1 below summarizes the results of those Exhibits. Exhibit 1-5B, Summary of Compensation Resulting from Consultation with Resource Agencies, presents the results of consultation with MDEP, Maine Department of Inland Fisheries and Wildlife ("MDIFW"), and Maine Natural Areas Program ("MNAP") to provide adequate compensation for resources which require compensation but are outside the purview of the MDEP and/or USACE mitigation guidance. Table 1-2 below summarizes the results of this exhibit.

Table 1-1: Summary of Compensation as Required by NRPA and/or USACE

Resource Type & Impact	Agency Requiring	Form of Compensation	Type and Amount of Compensation
47.687 acres of Temporary Wetland Fill	USACE	Preservation and In-Lieu Fee	Preservation of 57.01 acres of wetlands. $154,535.04
105.548 acres of Permanent Cover Type Conversion of Forested Wetlands[1]	USACE and MDEP	Preservation	Preservation of 440.29 acres of wetlands.
3.814 acres of Permanent Fill in Wetlands of Special Significance (WOSS)[2]			
0.307 acres of Permanent Fill in Wetland (Non-WOSS)			
0.743 acres of Permanent Wetland Fill in SVP Habitat	MDEP	In-Lieu Fee	$641,653.12
3.895 acres of Permanent Forested Wetland Conversion in SVPH			
0.720 acres of Permanent Upland Fill in SVP Habitat			
29.607 acres of Permanent Upland Conversion in SVPH			
Direct and Indirect Impact to USACE Jurisdictional Vernal Pools	USACE	In-Lieu Fee	$2,024,875.37
0.003 acres of Permanent Wetland Fill in IWWH	MDEP	In-Lieu Fee	$253,352.53
2.622 acres of Permanent Forested Wetland Conversion in IWWH			
0.014 acres of Permanent Upland Fill in IWWH			
12.387 acres of Permanent Upland Conversion in IWWH			
	In-Lieu Fee		$3,074,416.06
	Land Preservation		1022.4 acres of preservation containing 510.75 acres of wetland.

[1]The USACE requires compensation for Permanent Cover Type Conversion of Forested Wetlands. The MDEP requires compensation for Permanent Cover Type Conversion of significant wildlife habitat. Compensation for wetlands within significant wildlife habitat, IWWH and SVPH, are not included within the Permanent Cover Type Conversion of Forested Wetlands calculation and are calculated separately within their respective categories. Cover type conversion within upland areas of IWWH and SVPH are compensated separately as well.
[2]Permanent fill in WOSS excludes fill in IWWH and SVPH, which are calculated separately, in their respective categories.

Table 1-2: Summary of Compensation Resulting from Consultation with Resource Agencies

Resource Type & Impact	Agency Requiring	Form of Compensation	Amount of Compensation
9.229 acres of forested conversion in Unique Natural Communities	MNAP	Fee Contribution to Maine Natural Areas Conservation Fund	$1,224,526.82
Forested conversion to the Goldie's Wood Fern	MNAP	Funding for rare plant surveys to the Maine Natural Areas Conservation Fund	$10,000
26.416 acres of forest conversion in Roaring Brook Mayfly and Northern Spring Salamander Conservation Management Areas	MDIFW	Fee Contribution to Maine Endangered and Nongame Wildlife Fund	$469,771.95
39.209 acres of forest conversion in the Upper Kennebec Deer Wintering Area	MDIFW	Preservation	Seven parcels, totaling 717 acres of land in the Upper Kennebec DWA
11.02 linear miles of forested conversion in riparian buffers	MDEP and MDIFW	Preservation	Three preservation parcels, totaling 1053.5 acres, containing 12.02 linear miles of stream
		Fee contribution to Maine Endangered and Nongame Wildlife Fund	$180,000
		Funding for Culvert Replacements	$200,000
Impact to Outstanding River Segments	MDEP	Preservation	Three preservation parcels, offering 7.9 miles of frontage on the Dead River, an Outstanding River Segment
	Total Additional Monetary Contribution		**$2,084,298.76**
	Total Additional Land Preservation		**1770.5 Acres**

1.2.1.1 Temporary Wetland Fill

Temporary wetland fill impacts are primarily associated with the construction of short term access ways required for clearing and construction activities. Temporary fill associated with access way construction was conservatively calculated assuming non-frozen ground conditions. As a result, temporary fill or the use of protective matting (e.g. timber mats) for heavy equipment set up and travel was included in the calculation for access ways and structure preparation areas in all wetlands. Access ways have been designed to avoid, and when avoidance is not possible, to minimize disturbance to protected natural resources to the greatest extent practicable. For example, wetlands and streams will be crossed at their narrowest point if other conditions and construction access requirements allow this. Access ways will be removed as soon as it is safe and feasible to do so and when access ways are no longer needed for the Project. Fill needed for temporary access ways will not cause a net loss in wetland acreage or functionality. These small, scattered impacts will have a de minimis effect on the overall functions and values in the areas in which they occur, and there will be no permanent loss of wetland functions and values or wetland area. Temporary wetland fill will be in place significantly less than 18 months, and typically for a period of 12 months.

Compensation for temporary wetland fill, in place less than 18 months, is only required by the USACE, and is not required by MDEP. CMP has elected to offset impact for temporary fill in wetlands using a combination of land preservation and ILF. Three compensation parcels -- Flagstaff Lake Tract, Little Jimmie Pond-Harwood Tract, and Pooler Pond Tract, further detailed in Section 1.2.2.2 -- contain 510.75 acres of wetland to offset impacts to temporary wetland fill in scrub-shrub wetlands, as well as other wetland impact types, at the required ratios and adjustments. For scrub-shrub wetlands, the ratio for preservation is 20:1 with an adjustment of 10%, as set forth in the USACE Mitigation Guidance. An adjustment developed by the USACE for temporary and secondary impacts is applied to temporary impacts to emergent wetlands (5%) and temporary impacts to scrub-shrub wetlands (10%).

The ILF is used to compensate for temporary wetland fill in emergent wetlands. For the purposes of determining the appropriate ILF, the USACE follows the guidance defined in the MDEP Fact Sheet-In Lieu Fee Compensation Program (rev. 8/18/2017). The compensation fee for temporary fill to emergent wetlands was calculated using the resource-specific formula with a resource multiplier of one and an adjustment of 5%.

There are approximately 19.180 acres of temporary wetland fill impact to emergent wetlands. A payment of $154,535.04 will be contributed to the ILF Program to offset Temporary Wetland Fill Impacts to emergent wetlands.

There are approximately 28.507 acres of temporary wetland fill impact to scrub-shrub wetlands. For temporary wetland fill to scrub-shrub wetlands, the USACE's standard of 20:1 with a ratio adjustment of 10% was used to calculate the total required preservation amount of 57.01 acres. The three proposed compensation parcels -- Flagstaff Lake Tract, Little Jimmie Pond-Harwood Tract, and Pooler Pond Tract -- contain 510.75 acres of wetland, a portion of which will be used to offset the 57.01 acres of Temporary Wetland Fill in scrub-shrub wetlands.

1.2.1.2 Permanent Cover Type Conversion of Forested Wetlands

The majority (73%) of the NECEC Project will be located within or immediately adjacent to existing transmission line corridors. Clearing of tree species capable of growing into the conductors (referred to as "capable species") will be required to expand, typically by 75 feet, the width of the portion of the corridor where the Project will be co-located with existing transmission lines, and to create the 150-foot wide section of the new corridor located between The Forks Plt. and Beattie Twp. Tree removal from wetlands does not result in a net loss of any wetland area, and only potentially shifts or alters, but does not reduce, certain wetland functions and values. This type of cover type alteration, i.e., conversion of forested wetlands to early successional cover type wetlands, will result in the largest cumulative wetland alteration.

Compensation for forested wetland conversion is not required by the MDEP but is required by the USACE. The MDEP requires compensation for permanent cover type conversion of significant wildlife habitat. Compensation for wetlands within significant wildlife habitat, i.e. IWWH and SVPH, are not included within the Permanent Cover Type Conversion of Forested Wetlands calculation and are calculated and compensated for separately within their respective categories.

Conversion of forested wetlands to scrub-shrub wetlands accounts for approximately 105.548 acres. Even though there is no-net-loss of wetland functions or acreage resulting from clearing of forested wetland CMP will offset conversion of this habitat with the permanent preservation of lands which provide

comparable habitat. For forested wetland conversion, the USACE's standard of 20:1 with a ratio adjustment of 15% was used to calculate the total required preservation amount of 316.64 acres.

The three proposed preservation parcels -- Flagstaff Lake Tract, Little Jimmie Pond-Harwood Tract, and Pooler Pond Tract -- contain 510.75 acres of wetland, a portion of which will be used to offset the 105.548 acres of Permanent Forested Wetland Conversion.

1.2.1.3 Permanent Cover Type Conversion of IWWH

High quality IWWHs are typically composed of deep emergent marshes with high levels of interspersion of shrubs, open water, emergent wetland vegetation, and floating leaf, aquatic plants. As such, these habitats are typically not heavily forested and can be crossed by transmission line corridors without being significantly or adversely affected.

There will be approximately 15.009 acres of permanent cover type conversion in moderate and high value IWWH. Of the 15.009 acres, 2.622 consist of forested wetland and 12.387 acres are upland areas. Compensation for cover type conversion of upland areas of IWWH is only required by the MDEP, and not the USACE; compensation for wetland areas of IWWH is required by both agencies. Clearing and construction in IWWHs will take place in accordance with the time of year restrictions for work within IWWHs, as described in Section 7 of the Site Law Application. CMP will compensate for unavoidable impact to IWWH through a payment to the ILF Program. The compensation fee for cover type conversion within wetland areas of IWWH was calculated using the Natural Resource Enhancement & Restoration Cost and the average assessed land value per square foot of impact. For upland areas of IWWH, the fee was calculated using the average assessed land value per square foot of impact. During the April 3, 2018 compensation working session, MDEP (Jim Beyer) indicated that impacts to upland areas within Significant Wildlife Habitat (e.g. IWWH and SVPH) do not require a Natural Resource Enhancement & Restoration Cost factor, which is intended for the restoration of wetland areas. Mr. Beyer also indicated that a 60% adjustment would apply to IWWH. This is consistent with compensation for other significant wildlife habitat areas where the adjusted ILF has been determined to be sufficient to offset the partial loss of functions and values resulting from cover type conversion only, which (like SVPH conversion) has less of an environmental impact. The basis of a 60% adjustment is further supported by the acknowledgement in Chapter 305 of the MDEP Rules that certain activities *"will not significantly affect the environment and generally has less of an impact on the environment than an activity requiring an individual permit"*. One such activity allowed by Chapter 305 is the cutting or removal of vegetation within high or moderate

value inland waterfowl and wading bird habitat, or shorebird feeding or roosting buffer. As such, an adjustment of 60% to the standard calculation for ILF payment was applied. A payment of $252,130.55 will be contributed to the ILF Program to offset Permanent Cover Type Conversion within IWWH.

1.2.1.4 Permanent Cover Type Conversion of Significant Vernal Pool Habitat

The NECEC Project contains approximately 62 vernal pools which meet the definition of significant vernal pool under the Maine NRPA Chapter 335 significant vernal pool habitat identification criteria (DEP Reg 335.9B). The vernal pool habitat (also referred to as "vernal pool critical terrestrial habitat") includes the pool basin or depression plus a 250-foot buffer around the pool. Within the NECEC Project, permanent conversion from forested to non-forested cover in significant vernal pool habitats totals approximately 33.502 acres. Of the 33.502 acres, 3.895 are forested wetland and 29.607 acres are upland areas.

CMP will compensate for this unavoidable impact through a payment to the ILF Program. The compensation fee for cover type conversion within wetland portions of SVPH was calculated using the Natural Resource Enhancement & Restoration Cost and the average assessed land value per square foot of impact. For upland areas of SVPH, the fee was calculated using the average assessed land value per square foot of impact. An adjustment of 60% to the standard calculation for ILF payment, as prescribed by MDEP, was applied. A payment of $391,689.22 will be contributed to the ILF Program to offset Permanent Cover Type Conversion within SVPH.

1.2.1.5 Permanent Fill in Wetlands

There will be permanent fill impact from structures placed in wetlands. Fill will result from structures, soil mounding associated with pole placement, and, where necessary, concrete foundations. The area of disturbance for each pole varies based on structure type. Installations will range from approximately 30 to 185 square feet of permanent fill per structure, depending on structure type (e.g., steel monopole or wood H-frame). Following installation, the areas around each structure will naturally revegetate to herbaceous or shrub wetland communities. The small loss of wetland area from the structure fill equates to a negligible loss of wetlands functions and values relative to the remaining wetland area at each structure site. Taken individually, impacts from structures will have a negligible permanent impact on their particular installation locations.

The Merrill Road Converter Station, Fickett Road Substation and HDD Terminations Stations will have permanent wetland impacts from fill of approximately 3.130 acres, 1.328 acres and 0.259 acres, respectively. Permanent fill impact from transmission line structures total approximately 0.150 acre. CMP will provide compensation for the cumulative permanent wetland impacts associated with structure installation and substation site development, which total approximately 4.867 acres, including wetland areas in SVPH and IWWH.

Wetlands within NECEC segments and substations were classified as either wetlands that are not of special significance or as WOSS, as defined in DEP Reg. Chapter 310.4, and discussed at CMP's Site Law Application Section 9.2.3. Habitats reviewed to determine freshwater WOSS include:

- mapped habitats for state and federally listed T&E species;
- high and moderate value IWWH;
- presence of significant vernal pool habitat;
- areas within 250 feet of a great pond;
- wetland containing more than 20,000 square feet of open water or aquatic or emergent marsh;
- located within a flood plain;
- designated as a peatland; or
- located within 25 feet of a river stream or brook.

Of the 4.868 acres of permanent wetland fill, fill in Non-WOSS and WOSS wetlands totals 0.307 acres and 4.561 acre, respectively. The 4.561 acres of direct fill in WOSS, include wetland areas in SVPH and IWWH. CMP will offset permanent fill within wetlands with the preservation of lands that provide comparable habitat. For wetlands within SVPH and IWWH, CMP will offset permanent fill using the ILF. Permanent fill in WOSS, excluding SVPH and IWWH, is 3.814 acres.

CMP offered to USACE a ratio of 30:1 for permanent fill in wetlands, which is above the 20:1 required for land preservation of the compensation parcels offered as part of this plan. When applying 30:1 to both WOSS (excluding SVPH and IWWH) and non-WOSS, it yielded a total required preservation amount of 123.65 acres. The three proposed preservation parcels -- Flagstaff Lake Tract, Little Jimmie Pond-Harwood Tract, and Pooler Pond Tract -- contain 510.75 acres of wetland, a portion of which will be used to offset the 4.122 acres[1] of Permanent Fill in Wetlands.

[1] The 4.122 acres of permanent fill in wetlands include 0.307 acre of non-WOSS and 3.814 acres of WOSS, excluding wetland areas within SVPH and IWWH, which are compensated through ILF.

1.2.1.6 Permanent Fill in IWWH

Where unavoidable, direct impact to IWWH will result from the placement of transmission line structures. Direct impacts to IWWH total approximately 0.017 acre (747 square feet). Of the 0.017 acre, 0.003 acre (149 square feet) are wetland and 0.014 acre (598 square feet) are upland areas.

CMP will compensate for this unavoidable impact through a payment to the ILF Program. Permanent fill in wetland areas located within IWWH requires 100% compensation with a resource multiplier of two. The fee for wetlands within IWWH was calculated using the Natural Resource Enhancement & Restoration Cost and the average assessed land value per square foot of impact. For upland areas of IWWH, the fee was calculated using the average assessed land value per square foot of impact. A payment of $1,221.98 will be contributed to the ILF Program to offset Permanent Fill in IWWH.

1.2.1.7 Permanent Fill in Significant Vernal Pool Habitat

Permanent fill in SVP habitat will result from pole placement in both wetlands and uplands located within the 250 foot critical terrestrial habitat located around the pool depression, as well as from site development associated with the Merrill Road Converter Station. Potentially significant vernal pools that have not yet been determined as "significant" by MDIFW will be included in this calculation. There will be no direct impact to any significant vernal pool depressions.

Direct impacts to SVPH total approximately 1.463 acres. Of the 1.463 acres, 0.743 acre are wetland and 0.720 acre are upland areas. CMP will compensate for this unavoidable impact through a payment to the ILF Program. Permanent fill in wetland areas located within SVP critical terrestrial habitat requires 100% compensation with a resource multiplier of two. The fee for SVPH wetlands was calculated using the Natural Resource Enhancement & Restoration Cost and the average assessed land value per square foot of impact. For upland areas of SVPH, the fee was calculated using the average assessed land value per square foot of impact. A payment of $249,963.90 will be contributed to the ILF Program to offset permanent fill in significant vernal pool habitat.

1.2.1.8 Direct and Indirect Impacts to USACE Jurisdictional Vernal Pools

Under the provisions of Section 404 of the federal Clean Water Act, the USACE regulates activities in "waters of the United States," which include vernal pools. Vernal pools are defined by the New England District of the USACE in the General Permit (GP) for the State of Maine reissued on October 13, 2015. The USACE definition, while very similar to the MDEP's, does not reference "natural" and does not

recognize or differentiate significant vernal pools based on number of indicator species egg masses. Instead, the GP definition indicates: "the presence of any of the following species in any life stage in any abundance level/quantity would designate the waterbody as a vernal pool: fairy shrimp, blue spotted salamanders, spotted salamanders or wood frogs. The USACE may determine during a Category 2 Review that a waterbody should not be regulated as a vernal pool based on available evidence." Furthermore, under the Maine GP the USACE regulates activities within a distance of 750 feet from vernal pool depression, also referred to as the "vernal pool management area," which includes the pool depression, the envelope (area within 0 to100 feet of the vernal pool depression edge), and the critical terrestrial habitat (area within 100 to 750 feet of the vernal pool depressions edge).

In September 2016, the USACE New England District issued its updated Mitigation Guidance document. Within this document, the USACE provides the following guidance: "to determine the appropriate mitigation for vernal pool impacts, the pools to be impacted must be evaluated using the USACE Vernal Pool Characterization Form. This form documents both the quality of the vernal pool and its surrounding landscape to determine overall level of function of the pool." This "DRAFT Vernal Pool Characterization Form (9-7-16)," included within the guidance, is designed to characterize vernal pools and provide a valuation based on a point system for features of the pool and surrounding habitat for regulatory purposes, impact and compensatory mitigation assessment. The pools are scored or valued based on vernal pool characteristics, vernal pool envelope (100 ft) and critical terrestrial habitat area (100-750 ft) characteristics, and species present within the pool. Pools are then classified as having high, medium or low levels of functions, as determined by the scoring system on the form.

When the 2016 USACE Mitigation Guidance was issued, the NECEC natural resources survey effort was well underway. As such, CMP's consultants recorded field observations and pool characteristic data on the MDEP's Maine State Vernal Pool Assessment forms (DEPLW0897-82008) if the pool was potentially significant as defined in NRPA. For those pools which were not potentially significant as defined in NRPA, but were USACE-jurisdictional, data was collected on a consultant-created form that documented the survey efforts, which were conducted in accordance with a long-standing, broadly vetted, rigorous methodology accepted by the regulatory agencies. Nonetheless, the form did not utilize the scoring or classification contained in the 2016 guidance.

To evaluate the pools based upon the classification of high, medium, or low, and to provide the appropriate level of compensation for each resource, CMP proposed evaluation criteria based on the

existing level of information collected using the 2016 guidance as a framework. CMP worked with the USACE to determine the evaluation methods and received feedback on its proposal. *See* Exhibit 1-6.

Following the examination of all vernal pool features within the project area, CMP determined that 49 high value pools, 122 medium value pools, and 71 low value pools will be impacted by the Project and will require compensation.

The 2016 Guidance defines the amount of mitigation credit necessary to compensate for vernal pool impacts. The USACE uses the following ratio pattern for determining amount of preservation necessary to offset project impacts:

- For the loss of a low value pool, one medium or high value pool and its associated critical terrestrial habitat ("CTH") should be preserved.
- For the loss of one medium value pool, three pools of medium or high value and its associated CTH should be preserved.
- For the loss of one high value pool, five pools of medium or high value and its associated CTH should be preserved.

For calculating ILF, the applicant is to provide an ILF for direct fill to the pool depression or 100-foot envelope at the regular wetland rate and, in addition, the same ratio pattern is applied using a standard of 13,000 square feet for each vernal pool habitat, regardless of pool size. For example, the applicant will pay the equivalent of 13,000 square feet for a low value pool to protect one vernal pool and CTH, plus any direct fill impacts to the depression or envelope. Similarly, for medium value pools this value would be multiplied by three, 13,000 x 3 = 39,000 square feet; for a high value pool this value would be multiplied by five, 13,000 x 5 = 65,000 square feet.

Thus, for direct fill of USACE-jurisdictional vernal pools, CMP calculated the payment at the regular wetland rate. For secondary impacts as defined in the 2016 Guidance, which do not cause loss of the resource,[2] CMP applied a 5% adjustment[3] to the standard amount, which for vernal pools is set forth on page 95 of the 2016 Guidance (based on the value of the vernal pool). CMP determined the percent of

[2] The Guidance treats conversion of forest cover as a secondary impact, specifically for utility transmission lines. See page 15, referring to "the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way." See also page 91, stating that "In instances where there are primary impacts to aquatic resources, additional impacts to the canopy cover may be considered secondary impacts to the vernal pool and should be documented."

[3] On page 15 the 2016 Guidance states that "Suggestions for mitigation for . . . secondary impacts are expressed as percentages or ranges of percentages of the mitigation recommended for direct, permanent impacts."

this adjustment based on Table C2 (page 58), which provides suggested multipliers for secondary impacts to wetlands; that table applies here because the 2016 Guidance does not include anything more specific for vernal pools. These multipliers are percentages of "Standard Amount," where "Standard" refers to "amount of compensation that would be . . . required in ILF payments using the standard calculation" (on page 95 for vernal pools).

The applicable category in Table C2 is "Removal of forested wetland cover for new corridor," which states that the multiplier is "Project specific," and states in a footnote that "This should also take into account fragmentation impacts as part of the secondary impacts." Further, "Percentages may be reduced if appropriate project-specific BMPs are incorporated into the project." The most closely analogous percentage is 15%, which applies to "Permanent conversion of forested wetlands to scrub-shrub wetlands."

The 2016 Guidance further provides that compensatory mitigation may not be needed at all, or may be reduced below the stated percentages, if the considerations on pp. 15-16 support such a reduction. For vernal pools, the key consideration is "Vernal pool envelope and critical terrestrial habitat impacts: original aerial cover, relationship to other vernal pools, etc."

Regarding original aerial cover, based on aerial photographs the existing average forested cover within the 750 foot CTH of NECEC project USACE-jurisdictional vernal pools is 73.6%. The NECEC project would reduce this average forested cover to 68.9%, a reduction of forested cover of 4.7% within the CTH of USACE-jurisdictional vernal pools.

Regarding relationship to other vernal pools, 610 of the 700 USACE-jurisdictional vernal pools identified in the NECEC project corridor are within 1,000 feet or less of other vernal pools, and are thus cluster pools. The 2016 Guidance documents the value of cluster pools and notes, in part, "Clusters of vernal pools that vary in size, hydroperiod, and spatial proximity, provide each resident species with a variety of potential breeding sites. This allows adults to seek out high quality habitat with low densities of predators, provides a safety net in the event that one or more pools become uninhabitable due to disease, and increases the potential for genetic diversity" (see page 93 of the 2016 Guidance).

Based on the above provisions and considerations, CMP applied a 5% adjustment to the standard amounts set forth for vernal pools on page 95 of the 2016 Guidance.

The 2016 Guidance recognizes the need for flexibility in determining reasonable compensatory mitigation in circumstances such as this. For vernal pool resources, the 2016 Guidance briefly mentions "secondary impacts to the vernal pool due to loss or disturbance of the envelope and/or critical habitat," and references the Vernal Pool Characterization Form as the basis for determining compensatory mitigation. However, this form can only be completed for a given vernal pool in its current state; estimating pool functions post-development is therefore speculative and unreliable as a method to forecast shifts in functions and values due to indirect impacts such as conversion of vernal pool CTH from forested to scrub-shrub.

CMP worked with the USACE to develop and employ project-specific criteria for the valuation of USACE-jurisdictional vernal pools. Specifically, CMP proposed vernal pool value evaluation criteria based on the available information collected during 2015-2017 field surveys and using the principles of the 2016 Guidance as a framework. CMP worked with the USACE to develop this evaluation method and received feedback from USACE on its proposal. CMP utilized these criteria to classify NECEC vernal pools as high, medium, or low value.

CMP then developed and proposed a significant, reasonable, and proportional mitigation in lieu fee of $2,024,875.37 ($1,642,543.50 for secondary impacts + $382,331.87 for direct fill); this fee is based on both these vernal pools' values, and on potential NECEC impacts on their functions, values and productivity. The proposed 5% multiplier and resulting mitigation fee is premised on data demonstrating that indirect impacts such as tree clearing do not result in significant degradation of these pools' ecological functions, productivity, or value, as explained below.

Clear throughout the Guidance is its inherent flexibility in determining the amount of compensatory mitigation. Accordingly, the standard compensatory mitigation ratios, expressed as multipliers in the Guidance, "are the starting point for developing appropriate compensatory mitigation, [and] <u>there continues to be flexibility on a project-by-project basis in order to achieve the most appropriate mitigation for a specific project</u>. This flexibility may lead to a determination by the Corps of an amount and type of compensatory mitigation that differs from that included here" (emphasis in original) (see page 12 of the Guidance). It is therefore appropriate in this case that the Guidance document's applicable compensation multiplier is, as noted above, "project specific," allowing consideration of the studies and project specific conditions described below.

Data gathered and evaluated by TRC Engineers, LLC (TRC) based on a large MPRP vernal pool data set (presented in TRC's Position Paper on the Presence of Significant Vernal Pools in or Adjacent to

Transmission Line Corridors in Maine (TRC Report) attached as Exhibits 1-7 and 1-8), demonstrate the likelihood that the majority of these vernal pools will retain their productivity and functions following construction of a transmission line. TRC's study of vernal pools within "soft" land use developments such as CMP transmission line corridors found that the reduction in forested canopy does not result in a significant loss of functions, and the data demonstrate that the highest value pools (i.e., significant vernal pools) continue to function without loss or significant degradation of their ecological functions after the forest canopy within their CTH has been removed.

TRC cites the Maine Department of Inland Fisheries and Wildlife's finding that "approximately 40 to 50 percent of the natural vernal pools on the landscape were expected to meet the Chapter 335 Significant Wildlife Habitat Rules vernal pool significance criteria. The occurrence of significant natural vernal pools along the transmission corridors surveyed as part of the MPRP (44 percent) falls in the middle of that 40 to 50 range and compares well with regulatory expectations." TRC Report, Exhibit 1-7, page 10. TRC cites further evidence and concludes "that conversion of forest cover types to utility corridor can support and maintain viable and healthy populations of vernal pool breeding amphibians, even after time periods spanning multiple amphibian generations." TRC Report, Exhibit 1-7, page 11 ("Of note, 87.5 percent of significant vernal pools within the surveyed corridors contained less than 25 percent forested cover types within their CTH (within 250 feet of the pool depression). The transmission corridors that the pools are located within or along have been in existence and managed as non-forested, early-successional habitat for nearly half a century or more.").

TRC concludes, "no measurable loss of vernal pool functions is apparent in and along electric utility transmission corridors; in fact, significant vernal pools remain abundant and highly productive in the typical scrub/shrub habitat found in most transmission line corridors, even after multiple decades." TRC Report, Exhibit 1-7, page 1.

Thus, the TRC study results support the expectation that vernal pools impacted by a transmission line project will remain productive and abundant; as such, compensation for conversion from forested to scrub-shrub should recognize, and be commensurate with, this observed and likely retention of functions, values and productivity.

It should be noted that CMP developed the proposed $2,024,875.37 in lieu fee despite the fact that the functions and values of these vernal pools will not be negatively impacted, and the majority of these pools will retain their productivity and functions following construction of the NECEC transmission line. For this reason, CMP reserves the right to argue that the Corps does not have jurisdiction over these vernal

pools, and that secondary impacts should not be considered by the USACE, because for most of these impacts there is no associated direct fill (permanent or temporary) of a jurisdictional aquatic resource (including wetlands) requiring a section 404 permit. Nonetheless, CMP has proposed this in lieu fee in an effort to resolve this issue to the satisfaction of the USACE, and in recognition that there may be minor (though unobserved in the MPRP dataset) impacts to these vernal pools' functions and values.

It also is noteworthy that CMP has already included compensation for conversion of forested wetlands in its Compensation Plan, including those that are within USACE-jurisdictional vernal pool CTH, with a 15% adjustment. In other words, for those wetlands located within the 750 foot USACE CTH, these impacts were already compensated for via a proposed in lieu fee. Thus the proposed $1,642,543.50 in lieu fee is reasonable and appropriate to compensate for forested upland conversion impacts within the vernal pool CTH, which is the only impact not otherwise compensated for.

As noted above, 49 high value USACE-jurisdictional vernal pools will be impacted by the Project. The proposed fee, which is calculated based on the fee structure outlined in the 2016 Guidance, is offered in addition the fee for direct fill. CMP applied the ratio of five (5) multiplied by 13,000 square feet to the resource-specific ILF formula and then applied a 5% adjustment to this calculation to develop the ILF to compensate for potential secondary impacts to upland portions of the CTH. Thus, for high value USACE-jurisdictional vernal pools, a payment to the ILF Program of $586,592.50 will be made.

For medium value vernal pools, the standard of 13,000 square feet was multiplied by three (3) and then a 5% adjustment was applied to the resource-specific formula for wetland impacts. For low value vernal pools, the standard of 13,000 square feet is multiplied by one (1) and then a 5% adjustment was applied to the resource-specific formula. There are 122 medium value vernal pools and 71 low value vernal pools which require compensation. When applying these formulas, CMP calculated that the ILF is $889,219.50 and $166,731.50, respectively.

In total, CMP will provide $2,024,875.37 to the ILF Program for compensation of direct and indirect impacts to USACE jurisdictional vernal pools.

1.2.1.9 Compensation of Other Impacts

In its December 12, 2017 Environmental Information Request, the MDEP requested that CMP provide a mitigation package to compensate for impacts to cold water fisheries and recreational uses of the outstanding river segments. The MDEP notes, "The Department envisions this mitigation package will be

the responsibility of CMP to implement, not simply providing ILF monies." In its response, CMP committed to reach agreement on the terms of compensation for Project impacts with the MDEP and USACE, which will avoid, minimize or mitigate those impacts through design, location, construction practices, ILF contribution and/or compensatory mitigation parcels.

On April 3, 2018, CMP, MDEP, and USACE held a working session to discuss the NECEC Compensation Plan. MDEP (Jim Beyer), maintained that the compensation package must include a combination of compensation components: ILF, preservation, and/or enhancement, to account for all Project impacts (most notably, impact to recreational uses of outstanding river segment and indirect impact to coldwater fisheries). CMP proposes a number of methods to offset impact to these resources, including land preservation, a culvert replacement program, and incorporation of construction practices to protect coldwater fisheries habitat and enhancement, described within Sections 1.2.2.3 through 1.2.2.6. This plan, in combination with the ILF and the compensation parcels used to offset natural resource impacts, described in Sections 1.2.2.1 and 1.2.2.2, exceeds the minimum compensation amounts required and provides long term protection of protected natural resources in Maine.

1. Existing Recreational Uses of Outstanding River Segments

The Maine legislature protects certain rivers, "because of their unparalleled natural and recreational values, provide irreplaceable social and economic benefits to the people in their existing state." 12 M.R.S. § 403. The NECEC crosses the following five locations which are afforded special protection as outstanding river segments, as identified in 38 M.R.S. § 480-P and 12 M.R.S § 403:

- Upper Kennebec River
- Kennebec River below Wyman Dam
- Carrabassett River
- Sandy River
- West Branch of the Sheepscot River

The NRPA further governs proposed activities that cross any outstanding river segment as identified in section 480-P and provides that "the applicant shall demonstrate that no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of the river segment." 38 M.R.S. § 480-D(8). CMP provided an alternatives analyses demonstrating that "no reasonable alternative exists" for each river segment the transmission line crosses. *See* NRPA Application, Chapter 2

(submitted September 27, 2017); Responses to Data Requests Letter (submitted March 29, 2018); NECEC Overhead Crossing of the Kennebec River Letter (submitted July 26, 2018).

As demonstrated by CMP, "no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of this river segment." CMP has therefore taken measures to minimize the Project impact to these resources. In the locations where the HVDC line is to be co-located within existing rights-of-way, CMP has minimized additional clearing to an average additional width of 75 feet, and minimized additional natural resources impacts by proposing crossing locations in existing, developed transmission line corridors. CMP has proposed to cross under the upper Kennebec River using horizontal directional drilling (HDD) in order to preserve the aesthetic value of this river segment and to prevent visual impacts to recreational and other river users. Additionally, in response to MDIFW's Environmental Review Comments (submitted July 13, 2018), CMP committed to retaining 100 foot riparian buffers at all outstanding river segments.

Approximately 425 linear feet or 850 feet of river frontage (each bank) designated as outstanding river segments will be permanently impacted by forested conversion during construction of the NECEC. As discussed in detail in Section 1.2.2.3, to offset impact to existing recreational uses of outstanding river segments, CMP is including land preservation of three tracts along the Dead River which collectively will add 1,053.5 acres to Maine's conserved lands and provide protection in perpetuity of 7.9 miles of river frontage along the Dead River, an outstanding river segment. In addition to the wealth of recreational opportunities (which are not limited to hiking, fishing, whitewater rafting, canoeing, snowmobiling, wildlife viewing and hunting), these tracts include the protection of Grand Falls waterfall, the largest horseshoe waterfall in the State, in perpetuity. Impacts to outstanding river segments will not unreasonably impact existing recreational uses of these rivers.

2. Indirect Impacts to Coldwater Fisheries

In its December 12, 2017 Environmental Information Request, MDEP notes that "the project crosses 67 river, streams, or brooks, which contain brook trout habitat." The MDIFW's March 15, 2018 NECEC application review comments stated that "CMP's proposed 25 foot riparian buffer will not be adequate for the protection of water temperatures, water quality, and inputs of coarse woody debris necessary to support conditions required by brook trout and other aquatic life." As referenced by CMP's July 13, 2018

response to the MDIFW, a study by Gleason[4] on the impacts of powerline rights-of-way ("ROW") on forested stream habitat found that despite the open canopy condition, water temperatures were slightly lower than in off-ROW areas and that none of the water quality parameters were significantly different between the on-ROW and off-ROW study areas. Gleason's study also found no correlation between percent canopy cover and mean percentage of fines and found no significant difference in the Benthic Index of Biotic Integrity scores between on-ROW and upstream areas. Similarly, a study conducted by Peterson[5] on the effects of electric transmission line ROWs on trout in forested headwater streams in upstate New York found that stream reaches in electric transmission ROWs were exposed to more light, had denser stream bank vegetation, were deeper and narrower, and had a greater area composed of pools. Peterson's study found that trout were more abundant in stream reaches within ROWs and concluded that the increase in incident sunshine resulted in a denser forb and shrub root mass which further stabilized stream banks, resulting in less stream bank erosion, deeper channels, and higher populations of trout. Peterson concluded that electric transmission ROWs need not constitute an adverse effect on headwater trout population densities in forested basins.

Nevertheless, in consideration of both MDEP's and MDIFW's expressed concern of indirect Project impacts from clearing of the transmission line ROW, CMP has revised its NECEC Plan for Protection of Sensitive Natural Resources During Initial Vegetation Clearing and Post-Construction Vegetation Maintenance Plan (Exhibits 10-1 and 10-2) to expand the buffers for vegetation management and maintenance restrictions, as described below.

CMP will retain riparian natural buffers (or "riparian buffers") and implement restrictions, consistent with those described in Exhibits 10-1 and 10-2, within 100 feet of all rivers, streams or brooks which meet the following criteria:

- Presence of Special Concern, Threatened or Endangered species,
- Coldwater fisheries,
- Outstanding River Segments, as identified in 38 M.R.S. § 480-P and 12 M.R.S § 403,
- All perennial streams within the Segment 1 portion of the Project.

[4] Gleason, N.C. 2008. Impacts of Power Line Rights-of-Way on Forested Stream Habitat in Western Washington. Environmental Symposium in Rights-of-Way Management, 8th International Symposium, pages 665-678.
[5] Peterson, A.M. 1993. Effects of Electric Transmission Rights-of-Way on Trout in Forested Headwater Streams in New York. North American Journal of Fisheries Management, vol. 13 pp. 581-585.

For all other streams that do not meet the above criteria, CMP will apply a 75-foot buffer.

Extending the buffer to 100 feet for those streams which meet the above criteria will adequately protect coldwater fisheries. CMP also intends to replace improperly installed or non-functioning culverts to improve habitat connectivity as further described in Section 1.2.2.6.

Additionally, the Grand Falls Tract, Basin Tract, and Lower Enchanted Tract, located within an area of the State with an abundance of valuable coldwater fisheries and, collectively contain 63,440 linear feet or 12.02 miles of streams, including frontage on the Dead River and Enchanted Stream, which will be protected under a deed restriction or conservation easement.

3. Impact to Deer Wintering Areas

According to data provided by the MDIFW, a total of 22 deer wintering areas ("DWA") are crossed by the NECEC transmission line corridor. All DWAs crossed by the Project are classified by the MDIFW as indeterminate in value, which means that they are recognized as candidate Significant Wildlife Habitat under the NRPA, but currently have no formal value rating. No DWAs are impacted by the Merrill Road Converter Station or Fickett Road Substation.

Of the 22 DWAs crossed, 11 will be subjected to some conversion of forested habitat to shrub and herbaceous cover types. Additional DWAs intersected by Segment 4 of the Project will not be affected as there will be no clearing within DWAs along this segment.

One DWA, located near the Upper Kennebec River, is crossed by the Project in Segment 1. This resource is "non-regulatory, but still important for consideration in planning to accommodate needs of wintering deer" according to Bob Cordes, MDIFW (email correspondence 8/15/17). Project impacts within the HDD project modification area include 5.75 acres of tree clearing, and 0.84 acres of permanent impact from construction of the HDD termination stations. The underground HDD crossing beneath the Kennebec River minimizes impact to the DWA by retaining approximately 1,450 feet and 1,160 feet of forested buffer on the east and west sides of the Kennebec River, respectively. Intact, mature riparian buffers or vegetation bridges provide good travel corridors for wintering deer and are particularly valuable in this area of Maine, which experiences high winter snow depths. A total of 39.209 acres of tree clearing is proposed within the Upper Kennebec DWA. Through consultation with MDIFW, to mitigate impact to this DWA, CMP is proposing a combination of preservation of lands within the larger Upper Kennebec DWA and the implementation of deer travel corridors in the proposed ROW as further described in Section 1.2.2.5.

Construction and maintenance of Segments 2, 3, and 5 will not significantly affect the habitat functional attributes of the DWAs intersected by the Project for the following reasons:

- Corridor construction will only widen existing, non-forested transmission line corridors by an average of approximately 75 feet. As such, functional effects on these DWAs are expected to be indiscernible. It is expected that after construction has been completed, these DWAs will function similarly to the way they currently do.

- CMP will maintain its transmission line corridors in a manner that encourages the growth of non-capable shrub species that can provide important winter browse for over-wintering deer and in accordance with the CMP Post-Construction Vegetation Management Plan (Site Law Application Exhibit 10-2, revised January 2019 as described above) and CMP's Environmental Guidelines (Site Law Application Exhibit 14-1, revised June 2018).

CMP has avoided and minimized direct and temporary impact through adjusting pole placement where possible and minimizing temporary access roads through these areas. CMP proposes to enhance wildlife habitat in the Project corridor adjacent to DWA by revegetating disturbed soils in upland areas with a wildlife seed mix promoted and developed by the Sportsman's Alliance of Maine ("SAM") and the Maine Seed Company.

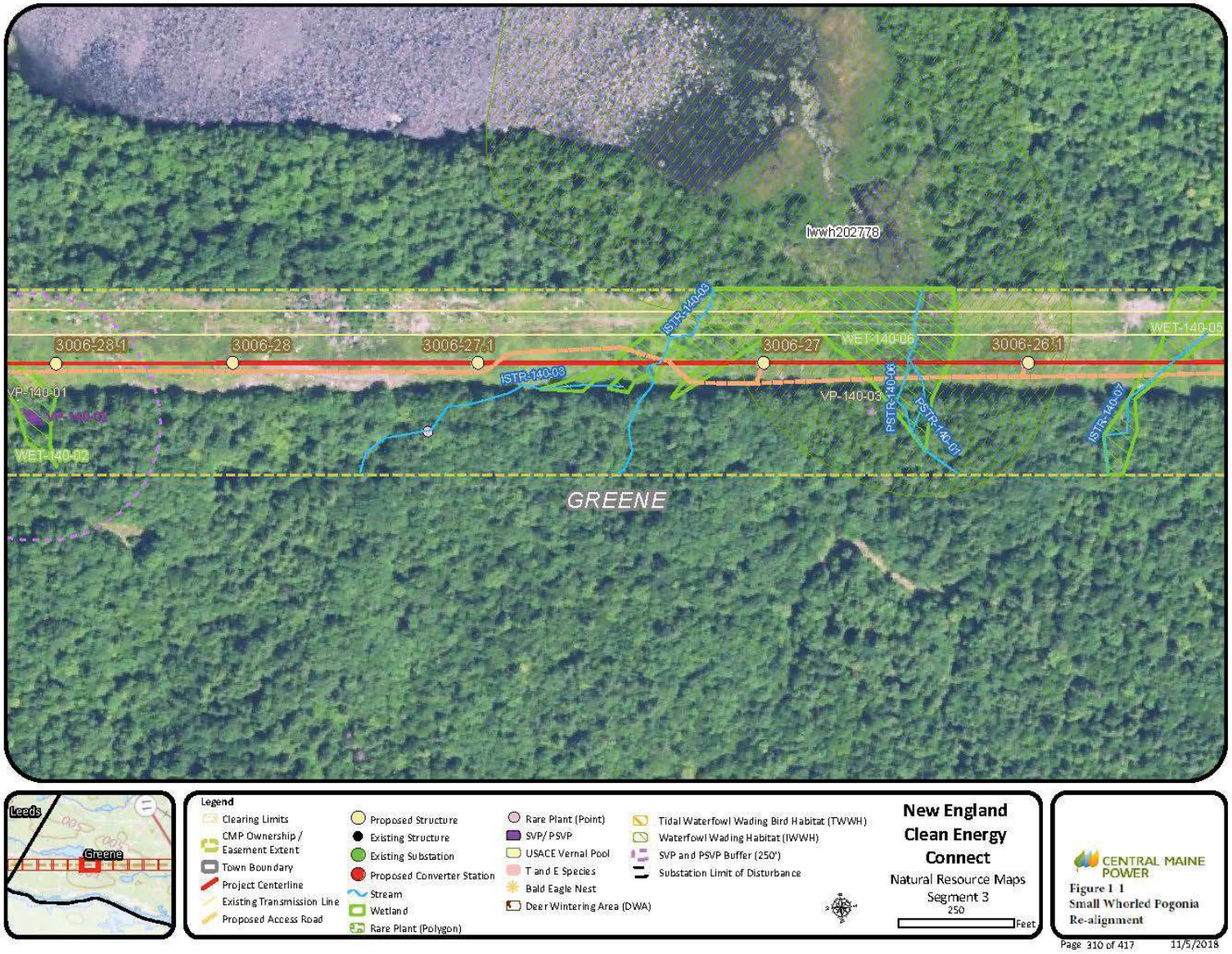
4. Impacts to Rare Plant and Unusual Natural Communities

CMP conducted field surveys for rare plants and unique natural communities within the project area in July 2018. As a result of the surveys, 15 rare plant occurrences and 5 unique natural communities were identified within or immediately adjacent to the project right-of-way. Through consultation with MNAP and the United States Fish and Wildlife Service ("USFWS"), CMP has addressed agency concerns for the rare plant occurrences through a combination of avoidance, minimization and construction best practices as detailed in Table 1-3, below.

Table 1-3: NECEC Rare Plant Avoidance, Minimization, and Mitigation Summary Table

Description	Common Name	Feature ID	Rank	Proposed Impact Based on Original Design	CMP Proposed Avoidance, Minimization, or Mitigation
Isotria medeoloides	Small whorled pogonia	ISME01AR	S1	Indirect impact, clearing	CMP proposes to avoid impact (additional clearing in proximity to this plant) by re-aligning the infrastructure within the existing corridor and eliminating tree clearing (See Figure 1-1). CMP will implement yearly monitoring for the first three (3) years following construction and once every three years thereafter.
Gentiana rubricaulis	Red stemmed gentian	GERU02AR	S1	No impact	CMP will flag the populations prior to construction, clearing should be done during frozen ground conditions or on matted travel lanes, CMP will restrict travel lanes where possible.
Gentiana rubricaulis	Red stemmed gentian	GERU03AR	S1	Clearing	CMP will flag the populations prior to construction, clearing should be done during frozen ground conditions or on matted travel lanes, CMP will restrict travel lanes where possible.
Dryopteris goldiana	Goldie's wood fern	DRGO01AR	S2	Indirect impact, the clearing limits are located within 20 feet of the population	CMP will flag this population prior to construction, maintain the riparian buffer adjacent to this occurrence and will plant non-capable species along the edge of the clearing limits to provide additional shading. Clearing will be performed by hand only to avoid heavy equipment disturbance. Additionally, to mitigate for indirect impacts related to tree clearing, CMP will provide a one-time contribution of $10,000 for MNAP rare plant survey efforts in Maine.
Carex siccata	Dryspike sedge	CASI02AR	S2	No impact	Install and maintain flagging for avoidance throughout construction. Poles to be removed should be cut at ground level, soil added, and the area allowed to revegetate.
Carex siccata	Dryspike sedge	CASI01AR	S2	No impact, Close to demo structure but likely not impact by activity. Hand cut and winch structure.	Install and maintain flagging for avoidance throughout construction. Poles to be removed should be cut at ground level, soil added, and the area allowed to revegetate.

Description	Common Name	Feature ID	Rank	Proposed Impact Based on Original Design	CMP Proposed Avoidance, Minimization, or Mitigation
Houstonia longifolia	Long leaved bluet	HOLO01AR	S2/S3	No impact, clearing limits shown on map but no clearing will be needed here	Install and maintain flagging for avoidance throughout construction and verify the correct placement of the access road during access road installation.
Gentiana rubricaulis	Red stemmed gentian	GERU01AR	S1	Clearing (Minor impact, clips an edge of the polygon)	CMP will flag the populations prior to construction, clearing should be done during frozen ground conditions or on matted travel lanes, CMP will restrict travel lanes where possible.
Gentiana rubricaulis	Red stemmed gentian	GERU04AR	S1	Clearing (Minor impact, clips an edge of the polygon)	CMP will flag the populations prior to construction, clearing should be done during frozen ground conditions or on matted travel lanes, CMP will restrict travel lanes where possible.
Gentiana rubricaulis	Red stemmed gentian	GERU04AR	S1	Clearing (Minor impact, clips an edge of the polygon)	CMP will flag the populations prior to construction, clearing should be done during frozen ground conditions or on matted travel lanes, CMP will restrict travel lanes where possible.
Trichophorum clintonii	Clinton's bulrush	TRCL01AR	S3	No impact	Install and maintain flagging for avoidance throughout construction.
Galium kamtschaticum	Boreal bedstraw	GALKAM002DMC	S2	No impact	Install and maintain flagging for avoidance throughout construction.
Galium kamtschaticum	Boreal bedstraw	GALKAM003DMC	S2	No impact	Install and maintain flagging for avoidance throughout construction.
Galium kamtschaticum	Boreal bedstraw	GALKAM001DMC	S2	No impact	Install and maintain flagging for avoidance throughout construction.
Lindernia dubia var. anagallidea	Yellowseed false pimpernel	LIDU01AG	SH	No impact	Install and maintain flagging for avoidance (protection of basin) and hand cutting of vegetation only.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WET-140-05
VP-140-01
VP-140-02
WET-140-02
VP-140-03
PSTR-140-06
PSTR-140-01
ISTR-140-07
GREENE
Leeds
Greene
Legend
Clearing Limits
CMP Ownership / Easement Extent
Town Boundary
Project Centerline
Existing Transmission Line
Proposed Access Road
Proposed Structure
Existing Structure
Existing Substation
Proposed Converter Station
Stream
Wetland
Rare Plant (Polygon)
Rare Plant (Point)
SVP/ PSVP
USACE Vernal Pool
T and E Species
Bald Eagle Nest
Deer Wintering Area (DWA)
Tidal Waterfowl Wading Bird Habitat (TWWH)
Waterfowl Wading Habitat (IWWH)
SVP and PSVP Buffer (250')
Substation Limit of Disturbance
New England Clean Energy Connect
Natural Resource Maps
Segment 3
250
Feet
CENTRAL MAINE POWER
Figure 1 1
Small Whorled Pogonia
Re-alignment
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Three (3) of the unique natural community types, meeting the minimum standards to qualify as a unique natural community, will be impacted by unavoidable tree clearing activities. These include portions of three Jack Pine communities, one Enriched Northern Hardwood Forest community, and one Hardwood River Terrace Forest community. The Hardwood River Terrace Forest community is within Segment 3 of the Project where project impacts have been minimized through co-location of corridors. These natural communities that will be impacted by the project total 9.229 acres of habitat. The Jack Pine and Enriched Northern Hardwood communities are all located within Segment 1 of the Project (new corridor). CMP conducted an analysis of Segment 1 that compared the environmental impacts of siting the transmission line on the north and south sides of the 300-foot wide corridor and provided this analysis to the MDEP and USACE (filed May 8, 2018). The analysis concluded that the southern alignment as proposed would cause fewer environmental impacts and was the preferred alternative. Similarly, reduction of overall impact to the unique natural communities in Segment 1 favors the southern alignment (i.e., 6.4 acres of a total of 20.9 acres of unique natural community types within the corridor will be impacted as opposed to the 14.5 acres that would be impacted if the transmission line were located on the northern side of the corridor). As detailed in Section 1.2.2.7, CMP proposes a fee contribution of $1,224,526.82 to the Maine Natural Areas Conservation Fund to compensate for unavoidable impacts to unique natural communities.

1.2.2 Total Compensation

The compensation package consists of 13 mitigation parcels, 3 of which are proposed for preservation to partially offset unavoidable natural resource impacts and 10 of which will be placed into conservation to provide compensation for recreational impacts to outstanding river segments, protect and preserve riparian buffers, and preserve deer wintering areas within the Upper Kennebec DWA. These 13 parcels, total 2,792.90 acres of land to be protected in perpetuity. CMP owns all of the tracts proposed for mitigation and will use the MDEP Declaration of Covenants and Restrictions (DOCR) template, tailored for existing uses and encumbrances, and reserving appropriate rights to CMP to manage vegetation, and intends to maintain fee ownership of the property and manage it in compliance with the DOCR and associated restrictions (i.e., undeveloped in perpetuity) until such time that it is transferred to a qualified recipient. The DOCR will be recorded prior to the start of construction activities.

In addition, CMP will provide a payment of $3,074,416.06 to the ILF Program; a $649,771.95 payment to the Maine Endangered and Nongame Wildlife Fund; a $200,000 commitment for culvert replacements; a $1,234,526.82 payment to the Maine Natural Areas Conservation Fund and has included a number of

habitat enhancements in the plan to improve habitat for coldwater fisheries, species of concern, and DWAs, further described as follows.

1.2.2.1 In-Lieu Fee

For those impacts offset through the ILF Program, compensation fees were calculated using the resource-specific formulas, based on the resource compensation rates and multipliers, as provided in the DEP ILF Fact Sheet (2017). The resource multiplier takes into consideration the significance of specific resources. Additionally, based on recommended guidance from the USACE and MDEP, an adjustment, or percentage of standard amount was applied to account for resources in which a full loss of functions and values do not occur.

As calculated within Exhibit 1-5.1 through 1-5.10 and summarized within Exhibit 1-5A, CMP is providing an In-Lieu Fee of $3,074,416.06 to off-set unavoidable impacts to resource functions and values as a result of the NECEC Project.

1.2.2.2 Compensation Parcels

MDEP allows for compensation which may include the restoration, enhancement, creation, or preservation of an area or areas that have functions or values similar to the area. 38 M.R.S. § 480-Z. CMP has selected its Flagstaff Lake, Little Jimmie Pond-Hardwood Tract, and Pooler Pond Tracts for preservation as mitigation. Of the three preservation tracts, only the Little Jimmie Pond-Harwood Tract will require "compensation work" in the form of enhancement through the control of invasive plant species on the property. Prior to construction, CMP will submit to the MDEP and USACE, for approval, an invasive species plan for the survey, control, and treatment of invasive species on the Project, including the Little Jimmie Pond-Harwood Tract. CMP will implement the control measures approved by MDEP and the USACE during the first full growing season following permit issuance and will submit a report by December 31st of that year documenting the efficacy of the treatment. CMP will provide follow up treatment if determined necessary by MDEP and USACE.

According to the USACE's 2016 Mitigation Guidance, preservation as mitigation "does reduce the threat of future impacts and may stem future aquatic resource degradation." Mitigation Guidance, p. 10. Furthermore, the USACE "encourages a combination of upland and aquatic resource preservation over aquatic resources-only preservation to offer better protection of aquatic functions," as state laws may not

protect non-wetlands whose degradation would affect aquatic resources. Mitigation Guidance, p. 11. Pursuant to 33 C.F.R. § 332.3(h), preservation may be used to provide compensatory mitigation when:

(i) The resources to be preserved provide important physical, chemical, or biological functions for the watershed;
(ii) The resources to be preserved contribute significantly to the ecological sustainability of the watershed. In determining the contribution of those resources to the ecological sustainability of the watershed, the district engineer must use appropriate quantitative assessment tools, where available;
(iii) Preservation is determined by the district engineer to be appropriate and practicable;
(iv) The resources are under threat of destruction or adverse modifications; and
(v) The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust).

Each of the potential preservation tracts (Flagstaff Lake Tract, Little Jimmie Pond-Harwood Tract, and Pooler Pond Tract) included in this plan meets all of these criteria and provides important physical, chemical, or biological functions for the watershed in which it is located. A detailed description of each parcel is included in Exhibit 1-9: NECEC Potential Compensation Tract- Natural Resources Survey Results Report.

An analysis of the applicable regulatory framework and regional trends, prepared by the Musson Group and included as Exhibit 1-3, shows that each of these three tracts is open to development in ways that could damage these important functions and thereby threaten to adversely modify the ecological sustainability of the watershed.

The functions and values of the three preservation tracts are similar to the functions and values associated with Project impacts to wetlands. These three tracts will be used to offset permanent cover type conversion of forested wetlands, permanent fill in wetlands and temporary wetland fill in scrub-shrub wetlands. The three tracts contain 510.75 acres of wetlands and the functions and values present on the preservation tracts are more than sufficient to offset these impacts. A comparison of the functions and values of the Project impact types and the three preservation tracts is provided below in Table 1-4.

Documentation of CMP's title, right, or interest in each of the preservation tracts is included in Exhibit 1-10. For each property, CMP proposes to convey fee ownership to either a non-profit land trust/non-governmental organization or a state resource agency and the transfer document between the parties will contain deed covenants and restrictions to preserve the compensation tract and its ecological values in perpetuity.

Table 1-4: Functions and Values Comparison				
Impacts		**Compensation**		
Activity & Regulating Agency	**Functions and Values Impacted[1]**	**Compensation Type**	**Site Name**	**Primary Functions and Values Provided[2]**
Temporary Wetland Fill Impacts in Scrub Shrub Wetlands (USACE)	Temporary impacts to WH, FA, GW, and VQA	Wetland Preservation	Little Jimmie Pond-Harwood Tract	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
			Flagstaff Lake	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
			Pooler Pond Tract	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
Temporary Wetland Fill Impacts in Emergent Wetlands (USACE)	Temporary impacts to WH, FA, GW, and VQA	ILF	NA	NA
Permanent Cover Type Conversion of Forested Wetlands to Scrub Shrub (USACE)[3]	Conversion will result in no permanent loss of wetland functions or values. Functional shifts will occur with regards to GW, FA, NR, SS, WH, REC, UNQ, VQA, and ESH.	Wetland Preservation	Little Jimmie Pond-Harwood Tract	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
			Flagstaff Lake	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
			Pooler Pond Tract	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
Permanent Wetland Fill Impacts (MDEP & USACE)	Permanent loss of GW, PE, NR, WH, REC, UNQ, VQA, and ESH.	Wetland Preservation	Little Jimmie Pond-Harwood Tract	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
			Flagstaff Lake	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
			Pooler Pond Tract	GW, FF, FH, PE, STPR, NR, SS, WH, ED, REC
Permanent Cover Type Conversion in Upland Vernal Pool Habitat (MDEP & USACE)	Clearing of VP Habitats will result in a de minimus reduction in VP habitat value	ILF	NA	NA
Permanent Fill in Vernal Pool Habitat (MDEP & USACE)	WH	ILF	NA	NA

Table 1-4: Functions and Values Comparison				
Impacts		**Compensation**		
Activity & Regulating Agency	**Functions and Values Impacted[1]**	**Compensation Type**	**Site Name**	**Primary Functions and Values Provided[2]**
Direct and Indirect Impacts to High and Moderate Value Inland Wading Bird and Waterfowl Habitat (MDEP)	Clearing of IWWH habitats will result in a de minimis reduction of IWWH value	ILF	NA	NA

[1] Function & Value List: GW = Groundwater Recharge/Discharge, FA = Floodwater Alteration, FH = Fish & Shellfish Habitat, STPR = Sediment/Toxicant Retention, NR = Nutrient Removal, PE = Production Export, SS = Sediment and Shoreline Stabilization, WH = Wildlife Habitat, R = Recreation, ED = Educational & Scenic Value, VQA = Visual Quality and Aesthetics, ESH = Endangered Species Habitat, UH = Uniqueness/Heritage
[2] Source: CMP NECEC Potential Compensation Tracts- Natural Resource Survey Results (8/13/2018).
[3] Conversion of forested wetlands includes clearing within SVPH or IWWH.

1.2.2.3 Preservation for Recreational Uses of Outstanding River Segments

CMP is including, as part of this compensation plan to offset impact to existing recreational uses of outstanding river segments, land preservation of three tracts along the Dead River which collectively will add 1,053.5 acres to Maine's conserved lands and provide protection in perpetuity of 7.9 miles of river frontage along the Dead River, an outstanding river segment (12 M.R.S § 403).

These lands, as detailed within the *NECEC Potential Compensation Tract- Natural Resources Survey Results Report*, Exhibit 1-9, include the Grand Falls Tract, Lower Enchanted Tract, and Basin Tract (see Figure 1-2), which not only contain high quality natural resources but will also augment existing conserved lands, protect habitat connectivity, provide opportunity to expand recreational opportunities and trail networks, and provide long term protection of 7.9 miles along the Dead River, most notably used by whitewater rafting tourism companies. Adjacent conserved lands include two Western Mountain Conservation Easement ("CE") parcels, 457.84 and 560.35 acres, respectively, and the Dead River Trail and Conservation Corridor easement which includes 660.97 acres. In summary, the 1,053.5 acres contained within the Grand Falls Tract, Lower Enchanted Tract, and Basin Tract will add directly to adjacent conserved lands, which total approximately 1,679 acres, increasing the area conservation lands as a whole by 39%. The recreational opportunities and their relationship to other conserved lands are highlighted below.

Table 1-5

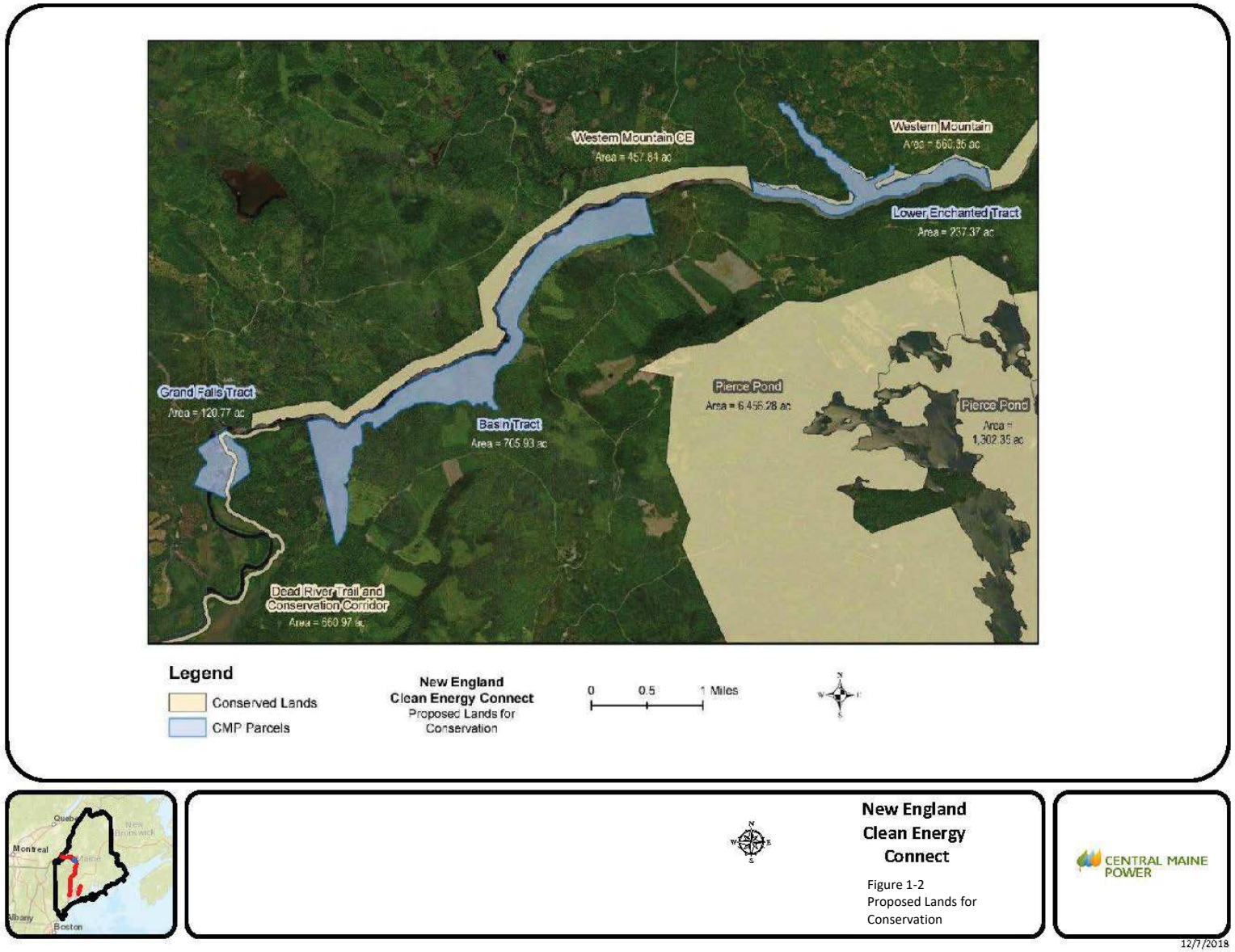
Tract	Dead River Frontage	Acres
Grand Falls Tract	1.4 miles (0.7 on each side)	120.84
Lower Enchanted Tract	2.3 miles along the north side	235.60
Basin Tract	4.2 miles along the south side	697.06
Total:	7.9 miles	1,053.50

Grand Falls Tract: The Dead River Trail and Conservation Corridor passes through this tract. This parcel is part of the Maine Huts & Trails network traveled by day and through hikers and also used for camping, cross country skiing and snowshoeing. The Northern Forest Canoe Trail traverses the tract connecting Flagstaff Lake with Spencer Stream and is the starting point for commercial Dead River rafting operations. The Tract is also highly regarded for trout and salmon fishing and hunting opportunities. The Grand Falls Tract has the largest horseshoe waterfall in the state. This tract is approximately 3.25 miles downstream, along the Dead River, of the 50,000 acre Bigelow Mountain-Flagstaff Lake-North Branch of the Dead River Focus Area of Statewide Ecological Significance. Within the intervening distance is a 1,542 acre moderate value IWWH, linking Grand Falls Tract with the Focus

Area. Conserved lands on this property are limited to the 200 foot wide Dead River Trail and Conservation Corridor on the east side of the river.

Lower Enchanted Tract: The Lower Enchanted Tract abuts the Western Mountain Conservation Easement parcel on both sides (east and west). Preservation of this tract will link segments of and expand on the Western Mountain Conservation Easement and will encompass approximately 0.7 miles on both sides of Enchanted Stream as well as 2.3 miles along the north shoreline of the Dead River. The Lower Enchanted Stream and the Dead River are very popular for brook trout and landlocked salmon fishing. Commercial river rafting on the Dead River passes along the shoreline of the Lower Enchanted Tract which also provides emergency access to the river.

Basin Tract: The Basin Tract includes approximately 4.2 miles of frontage along the south side of the Dead River. The Western Mountain Conservation Easement is located on the opposite shore of the Dead River, directly north of the Basin Tract. Commercial river rafting on the Dead River passes along the shoreline of the Basin Tract. Approximately one mile south of the 697-acre Basin Tract there are approximately 10,000 contiguous acres of Conserved Lands encompassing Pierce Pond, Grass Pond, Kilgore Pond, Split Rock Pond, Higher Pond, Dixon Pond, Fernald Pond, and Horseshoe Pond, and the Appalachian Trail Corridor. The Dead River is also highly regarded for brook trout and salmon fishing. Hunting opportunities are another recreational value of the Tract, as is its wetlands.


Western Mountain CE
Area = 457.84 ac
Western Mountain
Area = 660.35 ac
Lower Enchanted Tract
Area = 237.37 ac
Grand Falls Tract
Area = 120.77 ac
Basin Tract
Area = 705.93 ac
Pierce Pond
Area = 6,456.28 ac
Pierce Pond
Area = 1,302.35 ac
Dead River Trail and Conservation Corridor
Area = 660.97 ac
Legend
Conserved Lands
CMP Parcels
New England Clean Energy Connect
Proposed Lands for Conservation
0 0.5 1 Miles
Montreal
Boston
New England Clean Energy Connect
Figure 1-2
Proposed Lands for Conservation
CENTRAL MAINE POWER
12/7/2018

1.2.2.4 Preservation of Riparian Buffers

MDEP and MDIFW have stated that conversion impacts to riparian buffers are compensable and have provided guidance to CMP to put forth a multifaceted plan to mitigate for these indirect impacts. The ILF Program does not provide a standard fee structure specific to habitat conversion within riparian buffers. In a meeting held between CMP, MDEP, and MDIFW on January 22, 2019, MDEP asked CMP to quantify forested conversion by calculating the linear feet of stream within the Project corridor whose riparian buffers would be converted from forested to scrub-shrub, and by calculating the linear feet of stream to be protected within the preservation parcels; monetary contributions and habitat enhancement would also count as additional compensation for these indirect impacts.

The NECEC will have 11.02 linear miles of forested conversion impact to streams; this includes all streams regardless of classification or value. The Grand Falls Tract, Lower Enchanted Tract, and Basin Tract contain a total of 12.02 linear miles of stream, providing greater than a 1:1 ratio.

In addition to preserving 12.02 miles of stream, CMP has also expanded the riparian buffers for vegetation management and maintenance activities. As discussed in Section 1.2.1.9, CMP will apply a 100-foot buffer to coldwater fishery habitats, outstanding river segments, RTE waterbodies, and all perennial streams in the new corridor portion (Segment 1) of the project. CMP will apply an expanded buffer of 75 feet to all other streams that do not meet these criteria.

Further detailed in Section 1.2.2.6, CMP will make a contribution of $180,000 to the Maine Endangered and Nongame Wildlife Fund to protect coldwater fishery habitat and will implement a Culvert Replacement Program (Exhibit 1-11) which includes the repair, removal or replacement of culverts within CMP-controlled lands as well as $200,000 of funding, sufficient to replace approximately 20-35 culverts on lands outside CMP's ownership.

This plan is robust and addresses the various requests made by the agencies to compensate for the indirect impact of forest conversion to streams contained within the NECEC corridor.

1.2.2.5 Preservation for the Upper Kennebec Deering Wintering Area

As discussed in Section 1.2.1.9, the Upper Kennebec DWA was identified by MDIFW as a biological deer wintering area with nearly four decades of data collection and in an area of the state where wintering deer are vulnerable to deep snow depths. A total of 39.209 acres of tree clearing is proposed within the Upper Kennebec DWA. In addition to establishing deer travel corridors within the ROW in this habitat, described in Section 1.2.2.6, and through consultation with MDIFW, CMP is proposing preservation of

lands within the larger Upper Kennebec DWA to mitigate for unavoidable impacts and provide long term protection of this deer wintering area.

CMP has identified 7 parcels for preservation, depicted in Figure 1-3, which CMP owns and which are located in the Upper Kennebec DWA. The table below includes the total acreage for each parcel, and the net acreage, i.e., the acreage of each parcel located within the mapped DWA.

Table 1-6

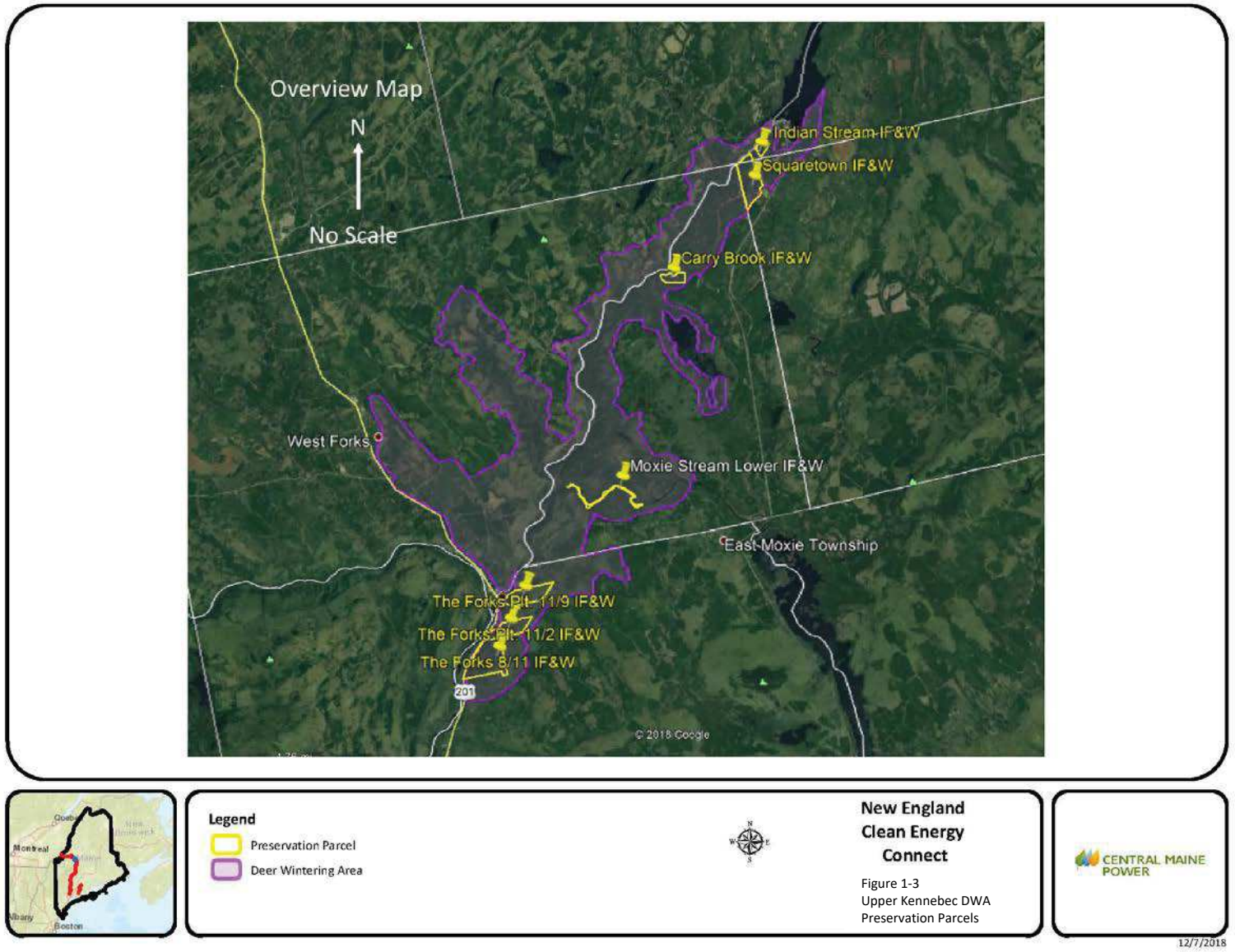
Parcel Name	Township	Total Acres	Less	Net Acres
The Forks Plt. 11/9	The Forks Plt.	130	5	126
The Forks Plt. 11/2	The Forks Plt.	109	7	102
The Forks Plt. 8/11	The Forks Plt.	233	5	228
Carry Brook	Moxie Gore	43	-	43
Moxie Stream Lower	Moxie Gore	29	-	29
Squaretown	Squaretown Twp	164	-	164
Indian Stream	Indian Stream Twp	25	-	25
			Total	**717**

CMP proposes to convey these properties to the Maine Bureau of Public Lands ("BPL") to be managed as deer wintering areas in perpetuity. The Forks Plt. 11/9 lot abuts the existing Cold Stream BPL parcel and the 11/2 and 8/11 lots are in close proximity and abut each other. The Moxie Stream parcel is located in the center of the mapped DWA and contains a segment of Moxie Stream. The Squaretown and Indian Stream parcels are in the northern section of the DWA. The properties contain softwood and mixed forest stands, preferred habitat for deer during the winter months.

CMP previously agreed to allow a multi-use recreational trail across The Forks Plt. Parcels to connect the Forks area trail systems (formerly the FAST Trail, Ridge Trail Section) from the Flood Road to the center of town, as part of a May 30, 2018 Memorandum of Understanding ("MOU") between CMP and the Western Mountain & Rivers Corporation ("WM&RC"). CMP will work with MDIFW to determine the specific construction, dimensions, location, and uses of this trail, such that the parcels retain their function and value as deer wintering areas.

MDIFW recommended that to appropriately mitigate for forest conversion within the Kennebec DWA, CMP should conserve land at an 8:1 ratio, which equals approximately 314 acres based on 39.209 acres

of forest conversion within the DWA. These parcels provide significantly more than the recommended 8:1 ratio, totaling 717 acres, an excess of 403 acres, and a ratio of greater than 18:1.


Overview Map
N
No Scale
Indian Stream IF&W
Squaretown IF&W
Carry Brook IF&W
West Forks
Moxie Stream Lower IF&W
East Moxie Township
The Forks Plt 11/9 IF&W
The Forks Plt 11/2 IF&W
The Forks 8/11 IF&W
201
© 2018 Google
Legend
Preservation Parcel
Deer Wintering Area
New England Clean Energy Connect
Figure 1-3
Upper Kennebec DWA
Preservation Parcels
CENTRAL MAINE POWER
12/7/2018

1.2.2.6 Wildlife Habitat Protection and Enhancement

COLDWATER FISHERY MITIGATION

Coldwater fishery habitat is prevalent in the northern region of the Project. In fact, MDIFW has acknowledged, in an email from MDIFW Program Support Supervisor Robert Stratton –, that "viable brook trout habitat is not lacking in this region to the extent it might be elsewhere". Regardless, in addition to the 100 foot riparian buffer discussed in Section 1.2.1.9 above and the coldwater fishery habitat proposed for preservation, CMP is proposing the following measures to mitigate for coldwater fishery impacts and to improve coldwater fisheries habitat.

CMP has developed a culvert replacement program, in order to improve the habitat connectivity of coldwater fisheries in a number of locations where improperly installed, undersized, or damaged culverts are currently known to exist (Exhibit 1-11). In addition, within the Project right-of-way, CMP will replace existing culverts found to be damaged, installed improperly, or non-functioning. CMP will install replacement culverts consistent with Stream Smart Principles to improve or maintain habitat connectivity. In addition to replacing culverts within CMP-controlled lands associated with the Project, CMP will dedicate $200,000, sufficient to replace approximately 20-35 culverts on lands outside of CMP's ownership. CMP proposes to work with MDEP, MDIFW, and interested environmental non-governmental organizations, and to grant this money to the appropriate entity or entities who can identify those culverts most beneficial to replace, and who will manage and oversee their replacement. Additionally, CMP proposes a payment in the amount of $180,000 to the Maine Endangered and Nongame Wildlife Fund as additional mitigation for unavoidable indirect coldwater fishery impacts.

ROARING BROOK MAYFLY AND NORTHERN SPRING SALAMANDER HABITAT AVOIDANCE AND COMPENSATION

CMP executed surveys for Roaring Brook Mayfly and Northern Spring Salamander in the Fall of 2018. CMP will attempt to avoid crossing waterbodies with known occurrences of these two species. In the event alternative access cannot be found, CMP will coordinate with MDIFW regarding the location and placement of the equipment bridge prior to its installation. An environmental inspector will be present during installation of equipment bridges in these locations.

Through consultation with MDIFW, CMP agreed to modify its project design to include taller structures near Mountain Brook in Johnson Mountain Twp and Gold Brook in Appleton Twp to avoid and minimize impacts by allowing full height canopy to be retained within the conservation management areas

associated with rare species in these locations. MDIFW agreed that for unavoidable impacts to all other streams containing one or both of these species, a payment to the Maine Endangered and Nongame Wildlife Fund, using the MDEP ILF calculation (absent the wetland restoration and enhancement cost) at an 8:1 ratio is appropriate mitigation. As a result, CMP is proposing a contribution to the Maine Endangered and Nongame Wildlife Fund in the amount of $469,771.95.

HABITAT ENHANCEMENT FOR DEER WINTERING AREAS

The NECEC will have unavoidable forested conversion impacts to DWA, as discussed in in Section 1.2.1.9. In the co-located portions of the project, CMP has minimized impact by siting the HVDC line in existing corridors, thus requiring minimal additional clearing to accommodate the line. Only one deer wintering area, the Upper Kennebec DWA, was identified in Segment 1 (new corridor).

The Upper Kennebec DWA will require 39.209 acres of forest conversion. CMP's HDD design change at the Kennebec River has minimized clearing impact to this resource by preserving approximately 2,610 linear feet between the two termination stations and the Kennebec River. There will be no tree clearing activities in these areas. These areas will continue to function as deer travel corridors, providing habitat connectivity, within the riparian buffer of the river.

The remainder of the Kennebec DWA consists of 10,179 linear feet of right-of-way, and through consultation with the MDIFW, CMP has identified an additional 8 travel corridors to maintain habitat connectivity within the DWA. These additional 8 travel corridors, totaling approximately 3,279 linear feet (32.2% of the cleared DWA traversed), will maintain connectivity for deer travel in the winter months. CMP will manage these travel corridors as described Exhibits 10-1 and 10-2 of the Site Law Application (Revised January 2019). These management standards were developed in close consultation with MDIFW.

CMP also proposes, to enhance wildlife habitat in and adjacent to DWA, to revegetate disturbed soils in upland areas with a Wildlife Seed Mix, promoted by SAM and developed with Maine Seed Company. This wildlife friendly seed mix will offer nutrition to deer and other wildlife such as moose, rabbits, ruffed grouse, geese, and wild turkeys during late fall and early spring when woods forage is sparse. The

tender shoots derived from SAM's seed mix offer forage that is high in calories and protein, and deer find them to be highly digestible.[6]

Maine Seed Company's wildlife friendly seed mix contains highly nutritious cool season perennial grasses and clover that deer are attracted to in late fall and early spring. Other benefits[7] of the seed mix include:

- More wildlife-friendly than "conservation mixes"
- Provides superior deer nutrition immediately before and after the winter yarding season
- Grasses remain green and highly palatable into late fall/early winter, even under snow
- Contains five times the clover of "conservation mixes"
- White and red clover attract wildlife over most of the growing season
- Adaptable to a wide array of sites and soil conditions
- Cost effective - small seed size broadcast at only 25 lb./acre
- Plantings last several years with minimal maintenance.

1.2.2.7 Rare Plants and Unique Natural Communities

The NECEC will have unavoidable impacts to approximately 9.229 acres of unique natural communities, as discussed in Section 1.2.1.9. MNAP has not yet assigned a quality ranking to the unique natural communities that will be impacted by the project. In further consultation with MNAP, MNAP specified that if CMP elected to pay a fee in lieu of preservation for conversion impacts to unique natural communities, CMP should quantify the area of impact using a 250-foot buffer and apply the average assessed land value per square foot of impact, with a resource multiplier of 8 to the calculation. A fee of $1,224,526.82 was calculated for these unavoidable impacts.

MNAP and CMP also agreed that a one-time contribution of $10,000 to fund MNAP rare plant surveys would be adequate compensation for forest conversion impact associated with the Goldie's Wood Fern.

A total of $1,234,526.82 will be contributed to the Maine Natural Areas Conservation Fund.

[6] Lavigne, G., Experimental Wildlife Seed Mix Available through SAM, Maine Forest Products Council, June 2013.
[7] Advertisement for Wildlife See Mix, SAM and Maine Seed Company, available at: http://sportsmansallianceofmaine.org/archive/archive_files/2016/SAM_Seed_2016_ad.pdf

1.3 Conclusion

The NECEC Project will result in unavoidable temporary and permanent impacts to protected natural resources including freshwater wetlands, and is subject to the compensation requirements of the Wetlands and Waterbodies and Protection Rules (Chapter 310) and Significant Wildlife Habitat Rules (Chapter 335) of the Natural Resources Protection Act (38 M.R.S. §480-A-FF, and the Final Rule for Compensatory Mitigation for Losses of Aquatic Resources (40 CFR §230) pursuant to Section 404 of the U.S. Clean Water Act (33 U.S.C. § 1344).

Compensation for NECEC Project impacts includes: 2,793 acres of land for preservation; a $3,074,416.06 in-lieu fee payment; a $649,771.95 payment to the Maine Endangered and Nongame Wildlife Fund; a $200,000 commitment for culvert replacements; a $1,234,526.82 payment to the Maine Natural Areas Conservation Fund; and implementation of various wildlife habitat enhancement measures. The total land preservation and $5,158,714.82 in monetary compensation surpasses requirements set forth in these compensation Rules so that the national goals of no net loss of functions and values, articulated in a February 6, 1990 Memorandum of Agreement between the US EPA and US Army Corps of Engineers Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines, are fulfilled.